Claims

What is claimed is:

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1.   A method of operating a virtual private network, comprising the steps of:

(a) dialing a number;

10   (b) receiving the number at a service switching point of an originating carrier;

(c) performing a number identifier operation to determining if a call should be routed on a private line to a intermediate carrier switch;

15   (d) when the call is routed to the intermediate carrier switch over the private line, performing a custom dialing plan trigger on the number;

(e) sending a query including the number to a network carrier service control point;

20   (f) receiving a message containing a routing instructions including a plain old telephone number translation of the number; and

(g) routing the call based on the routing instructions.

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2.   The method of claim 1, further including the steps of:

(h) receiving the call at an intermediate switch;

(i) routing the call to a terminating service switching point.

3. The method of claim 2, wherein step (i) further includes the step of:

(i1) routing the call over a private line based on a received signaling indicator.

4. The method of claim 2, wherein step (i) further includes the steps of:

(i1) triggering on the plain old telephone number at the intermediate switch;

(i2) sending a routing query to a second service control point;

(i3) checking if a calling telephone number and the plain old telephone number belong to a same private network;

(i4) when the calling telephone number and the plain old telephone number belong to the same private network, routing the call over a private line.

5. The method of claim 1, wherein step (a) consists of dialing four digits.

6.   The method of claim 1, wherein step (c) further includes the steps of:

(c1) comparing the number to a predefined set of numbers;

(c2) when the number is included in the predefined set of numbers, routing the call over the private line.

7.   The method of claim 1, wherein step (f) further includes the step of:

(f1) receiving a signaling indicator as part of the routing instructions.

8.   A method of operating a virtual private network, comprising the steps of:

(a) dialing a number to initiate a call in a first local access and transport area;

(b) receiving the number at a service switching point of a first carrier;

(c) triggering on the number and sending a query to a network service control point;

(d) receiving a response containing a routing instructions including a plain old telephone number translation of the number;

(e) routing the call over a private line to a switch of an intermediate carrier;

(f) routing the call over a private line from the intermediate carrier to a service switching point of a terminating carrier.

9.   The method of claim 8, wherein step (d) further includes the step of:

(d1) receiving a signaling indicator as part of the routing instructions.

10. The method of claim 9, wherein step (f) further includes the steps of:

(f1) determining if the routing instructions include the signaling indicator;

(f2) when the routing instructions include the signaling indicator, routing the call over the private line.

11. The method of claim 8, wherein step (f) further includes the steps of:

(f1) triggering on the plain old telephone number;

(f2) sending a query to a service control point;

(f3) determining if the plain old telephone number and a calling party telephone number belong to a predetermined set;

(f4) when the plain old telephone number and the calling party telephone number belong to the predetermined set, routing the call over a private line.

12. A method of operating a virtual private network, comprising the steps of:

(a) dialing a custom number;

(b) receiving the custom number at a switch of a first carrier;

(c) routing the call to a switch of a second carrier based on having received the custom number; and

(d) when the call to the switch of the second carrier includes a plain old telephone number translation of the custom number, routing the call over the second carrier to a service switching point of a third carrier.

13. The method of claim 12, wherein step (b) further includes the steps of:

(b1) triggering on the custom number at the switch of the first carrier;

(b2) sending a query to a network service control point;

(b3) receiving the plain old telephone number translation of the customer number.

14.   The method of claim 12, wherein step (c) further includes the steps of:

(c1) determining at the switch of the first carrier that the custom number is not a standard number;

(c2) routing the call over a private line to the switch of the second carrier.

15.   The method of claim 12, further including the steps of:

(e) when the call to the switch of the second carrier does not include the plain old telephone number translation of the customer number, triggering on the call;

(f) sending a query to a network service control point;

(g) receiving a routing instructions including the plain old telephone number translation of the custom number.

16.   The method of claim 15, further including the steps of:

(h) routing the call based on the plain old telephone number, to a second switch of the second carrier;

(i) when the call includes a signaling indicator, routing the call over a private line to the service switch point of the third carrier.

17. The method of claim 16, further including the steps of:

(j) when the call does not include the signaling indicator, triggering on the plain old telephone number;

5 (k) sending a query to a second service control point, including a calling number and the plain old telephone number;

(l) determining if the calling number and the plain old telephone number belong to a predetermined group of numbers;

(m) routing the call over a private line when the calling

10 number and the plain old telephone number belong to the predetermined group of numbers.

18. The method of claim 12, wherein step (a) consists of dialing four digits.

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19. The method of claim 13, wherein the step of receiving the routing instruction further includes receiving a signaling indicator.